

ABSTRACT OF THE DISCLOSURE

Method of dissociating the extracellular haemoglobin molecule of annelids, e.g. *Arenicola marina*, which can be used to obtain the protein chains forming the molecule. The method includes a step of bringing an extracellular haemoglobin sample from annelids, e.g. *Arenicola marina*, into contact with at least one dissociating agent, e.g. a mixture containing dithiothreitol (DTT) or tris(2-carboxyethyl)phosphine (TCEP) hydrochloride or beta-mercaptoethanol and a dissociation buffer for a sufficient length of time in order to separate the protein chains from one another.